

REMARKS

In the Office Action, Claims 7, 9, 13-17, 22, 23 and 25-27 are rejected, Claims 8, 10-12, 18 and 24 are objected to and Claims 28-30 are allowed. In this Response, Claims 7, 16, 18, 22, 23 and 26 are amended, Claims 8, 10-12 and 29 are cancelled and Claims 31-37 are added. Applicant respectfully requests reconsideration of pending Claims 7, 9-18, 22, 23 and 25-33, in view of the following remarks.

I. Claims Rejected Under 35 U.S.C. §102

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” Lindemann Maschinenfabrik v. American Hoist & Derrick (“Lindemann”), 730 F.2d 452, 1458 (Fed. Cir. 1994) (emphasis added). Additionally, each and every element of the claim must be exactly disclosed in the anticipatory reference. Titanium Metals Corp. of America v. Banner (“Banner Titanium”), 778 F.2d 775, 777 (Fed. Cir. 1985).

The Examiner rejected Claims 7, 9, 13-17, 22-23 and 25-27 under 35 U.S.C. §§102(b) as being clearly anticipated by Mahlke et al., “Effective Compiler Support for Predicated Execution Using the Hyperblock”, Proceedings of the 25th Annual International Symposium on Microarchitecture, 1992, MICRO 25, Dec. 1-4, 1992, pp. 45-54 (“Mahlke”). Applicants respectfully traverse the rejection.

Regarding Claim 7, Claim 7 is amended to incorporate the features of cancelled Claim 8. As indicated by the Examiner, Claim 8 is objected to for being dependent on a rejected independent claim, but is indicated by the Examiner to be allowable if rewritten into independent format. Accordingly, Applicants respectfully submit that Claim 7 is amended to include the allowable features of Claim 8. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 7.

Regarding Claims 9 and 13-15, Claims 9 and 13-15 depend from Claim 7 and therefore include the patentable features of Claim 7, as described above. Accordingly, Claims 9 and 13-15, based on their dependency from Claim 7, are also patentable over Mahlke and the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claims 9 and 13-15.

Regarding Claims 10-12, Applicants would respectfully like to thank the Examiner for recognizing the allowability of Claims 10-12 if incorporated into Claim 7. Accordingly, the features of Claims 10-12 are respectively incorporated with the features of Claim 7 as new Claims 31-33, and Claims 10-12 are cancelled. Therefore, Applicants respectfully request that the Examiner allow new Claims 31-33.

Regarding Claim 16, Claim 16 is amended to include the following claim feature, which is neither taught nor suggested by either Mahlke or the references of record:

an operation unit to perform both a first operation designated by the conditional micro-operation to produce a first result, and a second operation to produce a second result.

Conversely, Mahlke teaches:

A Writeback stage which determines if the result of an instruction is to be written to either register file. Thus rather than squashing an instruction prior to execution, as in the Cydra system an instruction is not squashed until the Writeback stage. (Pg. 47, first paragraph.) (Emphasis added.)

In contrast, Claim 16 recites the performance of a conditional micro-operation to produce both first and second results, one of which is retired based on how an associated condition is resolved. Mahlke does not teach or suggest the generation of first and second results during instruction execution, as recited by amended Claim 10. Furthermore, Mahlke provides no teachings or suggestions with regards to decoded micro-operations and specifically, conditional micro-operations, as recited by Claim 16, as amended.

Accordingly, Applicants respectfully submit that Applicants' amendment to Claim 16 prohibits the Examiner from establishing a *prima facie* case of anticipation of Claim 16, as amended, in view of Mahlke. Therefore, Applicants respectfully submit that Claim 16, as amended, is patentable over Mahlke, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 16.

Regarding Claims 17 and 18, Claims 17 and 18 depend from Claim 16 and therefore include the patentable claim features of Claim 16, as described above. Accordingly, Claims 17 and 18, based on their dependency from Claim 16, are also patentable over Mahlke, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 17 and also withdraw the objection to Claim 18.

Regarding Claim 22, Claim 22 is amended to include the following claim feature, which is neither taught nor suggested by either Mahlke or the references of record:

an execution unit to perform both a first operation designated by a conditional instruction to produce a first result, and a second operation to produce a second result.

Conversely, Mahlke teaches:

A Writeback stage which determines if the result of an instruction is to be written to either register file. Thus rather than squashing an instruction prior to execution, as in the Cydra system an instruction is not squashed until the Writeback stage. (Pg. 47, first paragraph.) (Emphasis added.)

In contrast, Claim 22 recites the performance of a conditional instruction to produce both first and second results, one of which is retired based on how an associated condition is resolved.

Mahlke does not teach or suggest the generation of first and second results during instruction execution, as recited by amended Claim 22.

Accordingly, Applicants respectfully submit that Applicants' amendment to Claim 22 prohibits the Examiner from establishing a *prima facie* case of anticipation of Claim 22, as amended, in view of Mahlke. Therefore, Applicants respectfully submit that Claim 22, as amended, is patentable over Mahlke, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 22.

Regarding Claims 23-25, Claims 23-25 depend from Claim 22 and therefore include the patentable claim features of Claim 22. Accordingly, Claims 23-25, based on their dependency from Claim 22, are also patentable over Mahlke, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claims 23 and 25, as well as the objection to Claim 24.

Regarding Claim 26, Claim 26 has been amended to include the claim features of objected to dependent Claim 29. The Examiner has objected to Claim 29 and indicates that Claim 29 would be allowable if rewritten into independent format to incorporate the features of Claim 29 into Claim 26. Accordingly, Applicants respectfully submit that Applicants' incorporation of the features of Claim 29 into Claim 26 renders Claim 26 allowable over Mahlke and the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 26.

Regarding Claims 27-30, Claims 27-30 depend from Claim 26 and therefore include the patentable claims features of Claim 26, as described above. Accordingly Claims 27-30, based on their dependency from Claim 26, are also patentable over Mahlke, as well as the references of record. Consequently, Applicants respectfully request that the Examiner reconsider and withdraw the §102(b) rejection of Claim 27. Likewise, Applicants respectfully submit that the Examiner reconsider and withdraw the objection to Claims 28 and 30. In other words, although the Applicants would like to thank the Examiner for recognizing the allowability of Claims 28 and 30, Claims 28 and 30 are also allowable based on their dependency from Claim 26, as amended.

Regarding new Claim 34, new Claim 34 incorporates the indicated allowable claim features of Claim 28, as indicated by the Examiner. Accordingly, Applicants respectfully request that the Examiner allow new Claim 34.

Regarding new Claim 35, new Claim 35 incorporates the allowable claim features of Claim 28 with the features of Claim 26. Accordingly, new Claim 35 incorporates the allowable claim features indicated by the Examiner from Claim 28 with the features of Claim 26. Therefore, Applicants respectfully submit that new Claim 35 is patentable over the references of record and therefore respectfully request that the Examiner allow Claim 35.

Regarding new Claim 36, new Claim 36 incorporates the allowable claim features of Claim 30 with the features of Claim 26. Accordingly, Applicants respectfully submit that the features of new Claim 36 are patentable over the references on record and therefore respectfully request that the Examiner allow new Claim 36.

Regarding new Claim 37, new Claim 37 incorporates the allowable claim features of Claim 24 with the features of Claim 22. Therefore, Applicants respectfully submit that new Claim 37 is patentable over the references on record and therefore respectfully request that the Examiner allow new Claim 37.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the prior art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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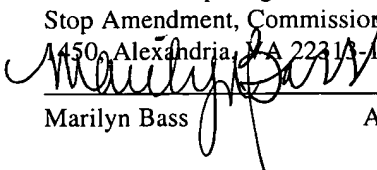
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CERTIFICATE OF MAILING:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 03, 2004


Marilyn Bass

August 03, 2004